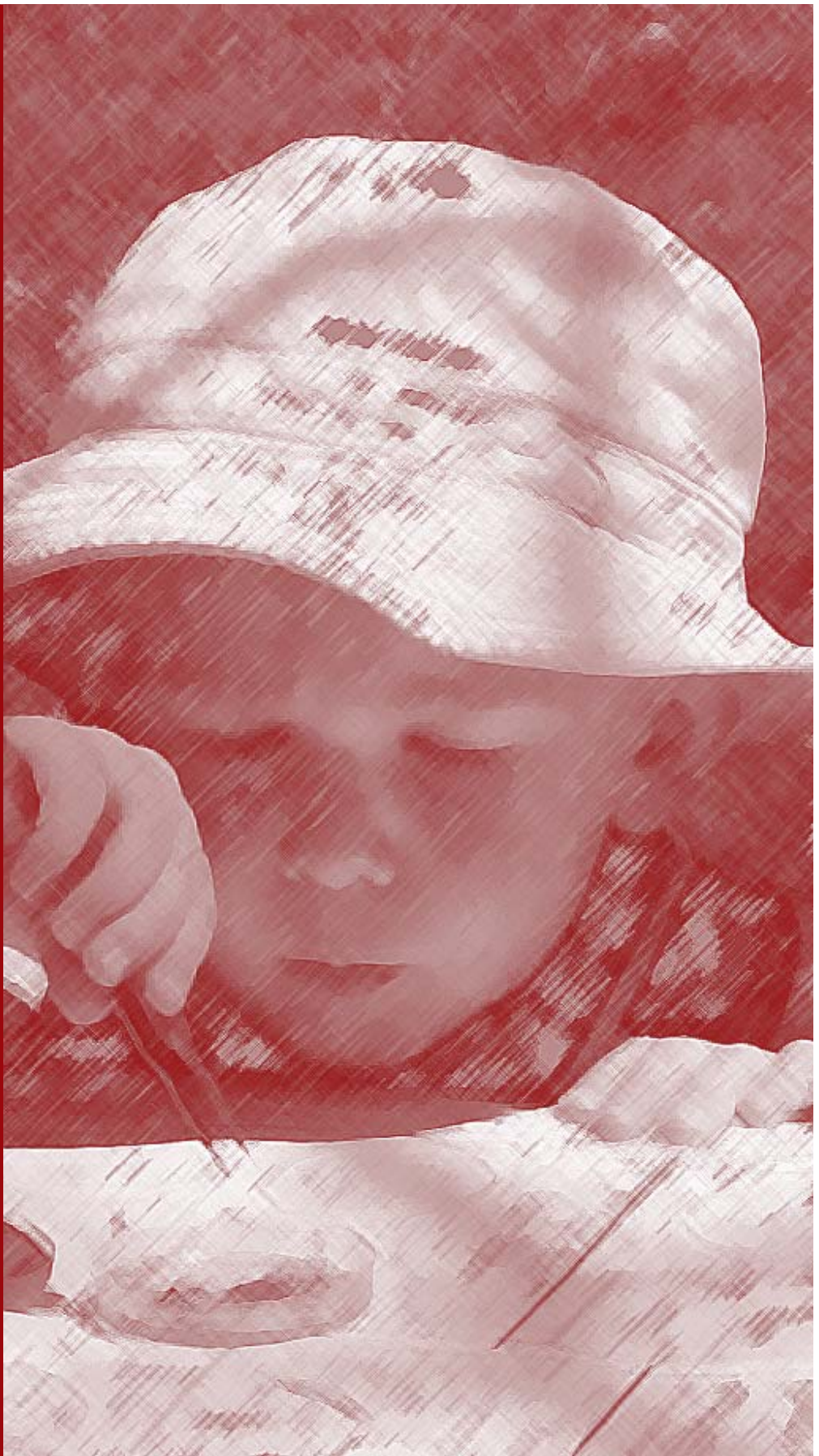


“Ultimately, a water  
ethic is about sharing  
— both with nature and  
with each other.”



Sandra Postel

*Last Oasis*



## KEY RESULT AREA 5

# Education and Involvement for Stewardship

**Desired Result:** *The Basin community shares a collective understanding and appreciation of the Basin's water resources and a commitment to their restoration, enhancement, and protection. This community values the water resources and understands the personal responsibilities needed to protect the resource.*

**What does education and involvement for stewardship mean?** The protection and prudent use of the water resources of the Basin depends on every resident, each company, and all organizations involved with activities related to or relying on water. Improving our sense of individual and collective stewardship is critical for achieving the Goals and Objectives of this Plan.

**Why is education and involvement for stewardship important?** The goal of stewardship is to promote good management of land and water resources through increased understanding and awareness. Knowledge and communication of information is a key foundation of stewardship.

A basic premise of water resource stewardship is to learn two things — that we live in a watershed and that we understand how to live within the limits of our water resource system. Good water resource education programs establish and enhance such awareness.

Four elements of water resource education\* are:

1. *Water Resource Awareness* — Raising and promoting basic awareness and an understanding of water resources gives people the tools to investigate avenues for change
2. *Personal Stewardship* — Educating citizens about the individual roles they play in water resource stewardship communicates specific messages about positive and negative behavior, inspiring personal action
3. *Professional Training* — Educating decision-makers in the private and public sectors about opportunities to apply water resource protection tools, operations management for pollution prevention, maintenance methods, etc.
4. *Engagement* — Providing opportunities to actively engage in protection and restoration activities

An important part of education for stewardship is providing individuals, corporations, government officials, and other stakeholders with opportunities to actively engage in protection, outreach and restoration activities.

*\*Note: This section is based on watershed stewardship programs found in Rapid Watershed Planning Handbook, 1998, published by the Center for Watershed Protection, Ellicott City, MD.*





# Education and Involvement for Stewardship

**“We are still in transition from the notion of man as master of the earth to the notion of man as part of it.”**

Wallace Stegner

## Goals for Education and Involvement for Stewardship

- 5.1 Establish a Basin-wide sense of place.
- 5.2 Increase student and youth awareness, understanding and active participation in water resources issues.
- 5.3 Increase private sector awareness, understanding, and active participation in water resources issues.
- 5.4 Increase local public officials’ awareness, understanding, and active participation in water resources issues, needs and management strategies.

**GOAL 5.1: Establish a Basin-wide sense of place.** Creating awareness and understanding of the river and its watershed resources to encourage stewardship.

- **Motivate Basin residents, businesses and officials to identify with their watershed address and to take responsibility for their behavior with respect to watershed resources.**

Water resource management requires an active and informed citizen commitment — to participate in local watershed activities and to make “water smart” lifestyle choices.

**Expanding the use of web-based and mass media resources.** In conjunction with other agencies and organizations in the Basin, the DRBC already links many existing sites from a central home page. Enhancing these capabilities and expanding information coverage will facilitate the acceptance and implementation of the Basin Plan. (See also “Key Result Area 4: Institutional Coordination and Cooperation,” Goal 4.2.) The mass media can play an important role in educating the public about water resource issues and the importance of conservation and other good practices. Workshops for reporters, editors and other media professionals can play an important role in ensuring the dissemination and consistency of critical messages. Projects that rely on volunteers, such as streamside restoration and planting, need to be advertised well in advance; print and radio media are critical elements.

- **Establish a Basin-wide clearinghouse and inventory of watershed projects, programs and contacts to create a more formal link among non-governmental groups involved in water resource issues.**
- **Employ mass media coverage of water resource issues to expand outreach.**

**Increasing opportunities for participation.** Expanding the number of projects, activities, and programs for citizens to participate in increases their exposure to water resource issues and to stewardship opportunities. Successful expansion of participation opportunities must include an appreciation for the increasing ethnic diversity of the Basin. Outreach efforts should include minority populations and their interests and concerns about water resources. Messages about lifestyle management must reflect sensitivity toward cultural and religious practices.

**Implementing signage programs.** “It’s your/my/our watershed!” Providing geographic reference to streams and their drainage systems for the Delaware River Main Stem and all major tributaries that cross interstate and state highways can help convey this message. Signs telling motorists they are entering a particular watershed or crossing a stream are already beginning to appear along roadways. This “watershed addressing” technique educates visitors as well as increasing residents’ awareness

## Education and Involvement for Stewardship

of where they live and travel in relationship to their home watershed and to other watersheds in the Basin.

**GOAL 5.2: Increase student and youth awareness, understanding and active participation in water resources issues.** We must take several steps to offer age-appropriate activities and curricula about water resources and the Delaware River Basin to the next generation of decision-makers. An integrated, sequential, K-12 science curriculum focused on the Delaware River Basin and emphasizing service in partnership with the community can provide districts and educators with some of the tools needed to expand water resource education in our schools.

**Providing outdoor experiences to engage students in learning about their watershed.**

Nothing makes a watershed lesson more fun and interesting than actual participation in an outdoor experience. This is when theory becomes alive and engaging. Students can learn about important water resource educational elements by applying science concepts directly to a local watershed, monitoring their local watersheds through field studies, learning about the impacts of water resources in their communities, and restoring watersheds through community needs-based projects.

**Supporting educators by providing information.** A web-based clearinghouse can provide timely, local aspects on water resource issues useful for curricula and activity development.

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The A. J. Meerwald is a sailing classroom promoting ecological and historical awareness of the Delaware Bay region.



BAYSHORE DISCOVERY PROJECT



# Education and Involvement for Stewardship

“If there is magic on this planet, it is contained in water.”

Loren Eiseley, “Four Quartets”,  
*The Immense Journey*

**GOAL 5.3: Increase private sector awareness, understanding, and active participation in water resources issues.** Water resource protection and enhancement is a salient business issue. The challenge is to create opportunities to form and firm the partnerships that produce positive results in water resource issues and sustain commerce in the Basin.

**Encouraging private businesses to adopt water resource stewardship as part of their mission.** A long-term corporate commitment to stewardship protects water resources for future generations in many ways. While adopting water resource-friendly policies at physical plant and office locations, corporations can advise their customers on how to handle or operate their products and inform them of any changes of regulations. The private sector can also partner with non-profit and local associations to promote community water resource programs.

**Disseminate information about water resource issues to the commercial community; describe water resource linkages with their commercial products and properties, and suggest partnership opportunities.** Highlight demonstration projects that showcase innovative and progressive commercial projects. These models serve as examples for other private sector interests as well as good public relations for water resource management.

**GOAL 5.4: Increase local public officials’ awareness, understanding, and active participation in water resources issues, needs and management strategies.** As emphasized throughout this Plan, better local land use decisions are the key to protecting water resources. Public officials at the county and municipal levels make most of these decisions. Outreach to these officials is critical, because state and federal regulations do not and cannot provide a range of protection adequate to address all the potential impacts of land management decisions on water resources.

**Targeting elected officials and local leaders for education and assistance.** Local leadership is essential for local action. Leadership within the decision-making process can be especially effective to forge the critical link between land use and water resource management.

- The watersheds of the 13,539 square-mile Basin include all or portions of 838 towns, townships, boroughs and cities in 42 counties.
- The political and legislative structure of three states and a commonwealth dictate differences in roles, responsibilities and authority among those entities.
- Political cycles determine changes in community management occurring with great frequency — potentially every one to four years. Dedicated commitment is required to provide education and technical resources as each new team of leaders takes office.

**Providing technical assistance to watershed communities.** To incorporate changes in land use plans and regulations, watershed communities require technical information that is scientifically sound and legally defensible. Broad-based information about the role of planning in water resource management is a critical element of this education and outreach.

- Generally, communities are hesitant to take action on an issue if it makes them vulnerable to legal action. Education and assistance programs must be developed to



## Education and Involvement for Stewardship

address this issue. Water resource protection needs to be easy and relatively effortless for successful local adoption and application. Model ordinances can facilitate this.

**Fostering partnership and communication among communities within each watershed.** It is important for each jurisdiction to understand its role within a watershed. (See “Key Result Area 3: Linking Land and Water Resource Management” for a discussion on watershed community). Watershed communities should be encouraged to share information, collaborate on similar issues and agree on desired water resource outcomes. Non-profit organizations such as local watershed alliances can help facilitate this collaboration.

**Addressing the upstream and downstream roles of the community as part of outreach to public officials.** Programs to educate and encourage stewardship among public officials should help them to understand how their community fits into the larger picture of the watershed, and where their watershed fits into the Basin.

- Most officials have a good understanding of the political landscape in their county and state. The ‘waterscape’ needs to become just as salient to accomplish improved water resource results.

**Making funding and other resources available for watershed communities to prepare and implement water resource-oriented plans and ordinances.** Making resources available with a minimum of fuss and hassle can make a big difference at the local level. A dedicated fund to improve the water IQ of local decision-makers is especially valuable and practical.

One of the purposes of developing this document is to provide a management tool for addressing the many water resource-related issues facing the Delaware River Basin. Through the narrative sections of this Plan, a direction has been set and Goals have been identified to achieve the Desired Results. The following section is a Matrix of Goals and Objectives. The identified Objectives lead to successfully reaching the Goals. Accomplishing the Objectives requires applying the integrated management concepts described throughout the Basin Plan.

